Pest Update (Aug 8, 2012)

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Note: samples containing living tissue may only be accepted from South Dakota. Please do not send samples of dying plants or insects from other states. If you live outside of South Dakota and have a question, instead please send a digital picture of the pest or problem. **Walnut samples may not be sent in from any location – please provide a picture!**

Available on the net at:
http://sdda.sd.gov/Forestry/Educational-Information/PestAlert-Archives.aspx

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Plant development

The Ural falsespireas are in full bloom in Brookings. It appears we finally are where we should be for a “normal” season.

Current concerns

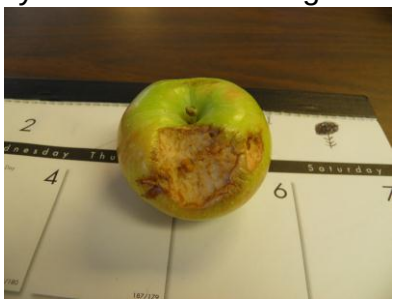
Bark beetles are appearing in dying East River pines. No, this is not the mountain pine beetle, but the six-spined engraver beetle known as *Ips calligraphus*. This engraver beetle is common in dying pines and can be found throughout the Great Plains as well as the pine forests in the northeastern part of the US and the western forests. I have not seen much of them in the eastern part of the state until the last few years but Mark Harrell, a Forest Health Specialist with the Nebraska Forest Service, told me he that over the years he has seen them in eastern Nebraska. I suspect the increase in reports is due to more folks being aware that there are beetles that attack pines and 2) that we have lots of belts with mature pines that are heavily infested with diploidia tip blight. The beetles are referred to as one of the “shothole” borers, the name due to the fact the bark can appear that someone shot at the tree the small exits holes are that numerous Once you pull the bark away you can find a network of tunnels that form ‘Y’ or ‘H’ patterns and you might even find the white legless larvae or an adult. (which is a large bark beetle and as the common name implies has 6 spines on the end of the wing covers).

At least in most of the trees that I have looked at the engraver beetle is the secondary stress and the trees are really declining more from old age (have looked at some ponderosa pine plantings that are 75 to 100 years old), drought, diploidia tip blight and a number of other stresses – in other words these trees were goners before the beetle. In fact the beetles were really just speeding up the dying process.

Fall webworms are on the move. Last week I started receiving calls about webbing on the tips of branches filled with small caterpillars. These are the young fall webworm larvae. The yellow to brown, tufted, larvae are about 1/3-inch long and actively moving within the nest at this time. The webworm differs from tent caterpillars in time of feeding (spring for tent caterpillars and late summer for webworms) and where they form their nests (interior, near branch crotches, for tent caterpillars and exterior, out on the

branches for webworms). The fall webworm favorite foods are cottonwoods, chokecherries and walnut, but almost any hardwood tree species will do. It is a myth that since they are feeding on leaves that will soon drop anyway that no damage is caused – the next month or so is a time of high productive for these leaves and the loss of them will leave the tree going into winter with fewer reserves. Control for the larvae is fairly simple when they are small – less than ½-inch – either just tear the nests open and let the predators and parasites after them or treat with Malathion or carbaryl (Sevin) among other insecticides

Squirrels are on the move! And doing their usual tree damage that I expect to see in August. I have receive a number of pictures of bark stripped off of elms and hackberries – two of squirrels favorite food apparently considering the number of samples and pictures I receive every year. They are also chewing the tips of pine shoots and beneath some pine trees the ground is littered with dozens of shoot tips that are cut cleanly at about a 45o angle. If all this damage is not enough, the squirrels really seem to be after apples this year, not the trees, the fruit! Squirrels do not seem to mind eating on fruit that is not yet ripe and appear to take great delight in eating half an apple and leaving the rest to you as a reminder that they were there! Not much can be done to prevent bark stripping, tip biting and chewing apples other than a 32-cal patched round ball.



E-samples

I got a great picture of a witches' broom (numerous shortened shoots attached to a knot on the branch) on a hackberry tree. These are common on hackberries but little is known about how the brooms develop or what injury they cause to the tree (other than the appearance). The broom is thought to be due to the combined actions of a powdery mildew fungus and an eriophyid mite. The mite appears to start the bloom by infesting the buds and the mildew then infests the developing bloom.

There are numerous other blooms that can develop on trees in our region. Spruces sometimes have blooms appearing on a branch or two and these rarely

expand. Serviceberries also produce blooms though these are due to different agents than a mildew and mite.

I am receiving numerous oak gall pictures such as this one showing the hedgehog gall. The various oak galls are formed by insects mostly (wasps), though some mites, through the injection of growth regulating chemicals secreted by the gall maker. The young live inside the galls now perfectly protected from the environment and predators. Many of the galls form on the twigs, such as the horned oak gall, and others such as the hedgehog gall form on the leaves. Control of oak galls is usually not necessary and most attempts at control are ineffective anyway. The lifecycles of these pests are poorly understood and very complex so treatment windows are not well defined.

Samples received

Bismarck, ND FL1200050 **What is causing the discoloration and holes in these cherry leaves?**

This is the same problem identified in the sample for Hamlin County. In fact this sample was interesting in that the older foliage was covered with the holes but the new emerging leaves were unblemished. This does not mean other problems cannot be also occurring and we will be doing further testing.

Hamlin County. **What is causing these holes in the Schubert chokecherry leaves?**

The problem is not an insect as someone might suspect because of the holes but a fungus disease known as Blumeriella (formerly Coccomyces) leaf spot or cherry leaf spot. The spots start out as dark purple spots on the leaves and later in the summer the spots dry and drop out leaving a shot hole appearance. Best control, and even that is limited, is to rake up and destroy all infested leaves this fall. Fungicide sprays can be used in the spring, right around petal fall, and continued on a 10 day basis until dry weather occurs in the summer.

Hughes County FL120051 **The leaves on the pears are beginning to turn brown.**

This is pear scab, a closely associated disease to apple scab though the symptoms are quite different. Pear scab usually shows up as browning or even blackening of the entire leave, usually starting at the margins but quickly covering the entire leaf. The control is similar to that prescribed for apple scab, fungicide

applications beginning in the spring as the buds open and then continuing every 7- to 10-days till dry summer weather occurs..

Lincoln County FL1200016 **Declining spruce trees in cowfield**

Blue spruce does not have to have a reason to die – they just seem to do it. In this instance the trees that were declining had the characteristic bluish-white resin blisters associated with cytospora canker. This is a common stress-related disease of spruce. I typically see belts and cluster plantings of spruce where only a few trees are expressing symptoms; trees like people have various degrees of resistance or tolerance to pathogens. Unfortunately, there is not anything that can be done to eliminate the disease, though pruning off infected branches will slow the spread within a tree.

Moody County **What is problem with this crabapple? The leaves have yellow spots.**

The problem is apple scab. This is the most common leaf disease of apples and crabapples and the symptoms are small olive green circles that enlarge and darken, often as the rest of the leaf turns yellow. The best control at this time is to rake up and dispose of any fallen leaves (and that includes raking into fall) as these fallen leaves harbor the overwintering fungi. However this provides very limited control and the best approach is to apply fungicides in the spring to prevent infection of the leaves as they emerge from the buds.

Tripp County **What is this tree and what is wrong with it?**

The tree is the Amur (sometimes referred to as the ginnala) maple (*Acer tataricum* subsp *ginnala*) a common windbreak tree in South Dakota. The yellowing to the leaves, while the veins remain green is called chlorosis, and in Amur maples is most commonly associated with an iron deficiency. The problem is not that the soils lack adequate amounts of iron; it is due to the alkaline soils rendering iron into an unavailable form. There is no cure for this problem – other than never plant Amur maples in soils with pH above 7.2. Adding chelated iron as a fertilizer can help but it is not a cure.